

REMARKS

This responds to the Office Action dated January 26, 2005. In the Office Action, claims 3-9, 12-17 and 20-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,005,389 to Prammer in view of U.S. Patent No. 6,452,389 to Edwards. In particular, the Office Action alleged that the Prammer patent discloses the invention recited in the pending claims except for the step wherein at least two or more time intervals are different, while the Edwards patent discloses different time intervals thus rendering the pending claims obvious (paragraph 3 of the Office Action). Applicant respectfully traverses.

To render claims of the present application obvious under 35 U.S.C. § 103(a), the cited prior art references must teach all elements of the pending claims. Applicant respectfully submits that the Prammer and Edwards references do not disclose all elements of independent claims 3, 12 and 20 of the present application. Even assuming *arguendo* that the Office Action correctly applied the scope of the disclosure in the Prammer patent to the pending claims, these claims are still believed to be patentable over the cited prior art because the Edwards patent does not disclose, teach or even suggest averaging of a single time-domain signal over two or more different time intervals, as recited in independent claims 3, 12 and 20 of the present application.

In particular, Edwards discloses a multi-frequency method of obtaining NMR data using CPMG sequences having different durations. (*See*, e.g., col. 6, ll. 20-23). According to the disclosed method, the nuclei of a geologic formation are first polarized with a static magnetic field and then exposed to the series of RF energy pulses arranged into CPMG pulse sequences. Notably, each CPMG pulse sequence is shorter than the preceding one. (*See*, e.g., col. 13, ll. 40-45; and Fig. 3). Each CPMG pulse sequence is followed by a data acquisition window, in which a corresponding NMR echo train is detected. Thus, the above data acquisition scheme results in a series of NMR echo trains having different durations.

The Edwards patent, however, does not disclose, teach or even suggest that a single NMR echo train may be time-averaged over two or more different time intervals, as recited in claims 3, 12 and 20 of the present application.

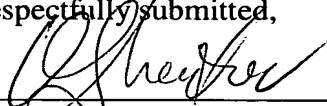
Likewise, the Office Action has acknowledged that the Prammer patent does not disclose time-averaging of a single NMR echo train over two or more different time intervals. And although Edwards teaches NMR echo trains of different durations, the combined teachings of the Prammer and Edwards references still fail to disclose time-averaging of a single NMR echo train over two or more different time intervals, as recited in independent claims 3, 12 and 20. For purposes of clarification, Applicant wishes to point out that time averaging several NMR echo trains having different duration, as taught by Prammer and Edwards, differs from time averaging a single NMR echo train over two or more different time intervals, as taught by the present application and recited in the claims. Accordingly, claims 3, 12 and 20, as well as the claims dependent thereon, are patentable over the Prammer and Edwards references.

Conclusion

In view of the foregoing remarks, applicant respectfully submits that the present application is believed to be in condition for allowance. A favorable disposition to that effect is respectfully requested. Should the Examiner have any questions or comments concerning this submission, or any aspect of the application, the Examiner is invited to call the undersigned at the phone number listed below.

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Respectfully submitted,


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